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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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26211 7590 12/10/2007 FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER VU, TUAN A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	09/843,429		MARSH ET AL.	
	Examiner		Art Unit	
	Tuan A. Vu		2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-24 and 26-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 3-16, 18-24, 26-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 10/19/2007.

As indicated in Applicant's response, claims 1, 15, 23, 34 have been amended. Claims 1-2, 3-16, 18-24, 26-35 are pending in the office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 35 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 35 recites 'a first data processor **comprising** a plurality of media gateways'.

Gateways as described in the specifications are not taught as belonging in plurality to one single data processor. Nowhere in the Disclosure where the term 'gateway' is mentioned, does anything about a data processor remotely described or cited to implement such gateway. They are perceived from scanning the Specifications as belonging to backbone of a network, comprising softswitch(es) and belonging to a layer, in terms of providing intercommunication functionality between the network sub-entities and a manager system. The inventor cannot be perceived as possessing this single data processor recited as 'comprising a plurality of gateways'; and the 'first data processor' for lack of teaching in the Disclosure is not given any patentable

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weight. The limitation would be treated as 'a plurality of gateways associated with the network carrier' to enable examination of the merits of the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4-16, 18-24, 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reifer et al, USPN: 6,421,727 (hereinafter Reifer) in view of APA (admitted prior art: Background of Invention, Specifications - pg. 1)

As per claim 1, Reifer discloses method comprising:

downloading a call service component to a call controller (provider ... download -col. 9, lines 7-28) in response to a network carrier action (e.g. Service Provider's location - col. 9, li. 7-14) that corresponds to the call service component,

wherein the call service component is for a particular user area comprising a plurality of users (e.g. e.g. col. 3, lines 52-67; col. 4, lines 46 to col. 5, line 17; Fig. 4; Fig. 8), wherein a call service component is not for a per-call basis (e.g. Fig. 8-9 -Note: Software downloaded to a SPNet controller location to support software execution related to SPNetclient portions in BSCS gateways in conjunction with functionality portion at SPNet server for activation/deactivation, paging roaming etc. – see col. 8, line 41 to col. 9 line 15 – reads on download of code that would be used by a provider control location for servicing all customers for the gateways covering area - col. 3, lines 52-67 - in general, i.e. not a per call basis type download);

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using the call service component to support telecommunication traffic to or from a gateway under control of the call controller (e.g. *activation* – col. 5, li. 38-50; Fig. 11; col. 9, li. 15 to col. 10, li. 67; *Activate, Suspend, Deactivate* – Fig. 11).

Reifer does not explicitly disclose: the action of downloading to a service provider is for turning on a new service, and removing the call service component from the call controller when the network carrier shuts off the new service corresponding to the call service component for the particular user area in the network. New functionality provided to telecommunications system via upgrades was known concept at the time of the invention (see *Upgrades often need to be made* - APA). Accordingly, based on Reifer's download of Java components for instantiating new or added functionality of the SPNet server (see col. 8, lines 26-40) as to maintain support all gateway's connected users as set forth above, the reactivating (via re-installing) of newly added or upgrade code at the SPNet controller is strongly implied as well as the deactivating of the older Java components as a result thereof. Based on known practice for restarting a program after installation or upgrade, it would have been obvious for one skill in the art at the time the invention was made to implement turning on of newly installed SPNet-server service component (i.e. the newly acquired Java-based functionality) to support a new or upgrade in the servicing (as mentioned by APA) of telecommunication users pertinent to the related gateways in Reifer's GBS area, as well as removing the older call service component in terms of the GBS carrier shutting off (deactivating) the replaced service component in favor of the newly activated component, because this would maintain consistent support of the area of service covered by Reifer's GBs provider with the most upgraded and latest software support (see *upgrades* - col. 21, li. 30-60) as soon as new upgrades are identified to improve SPNet server's functionality.

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As per claim 2, Reifer discloses including dynamically downloading the call service component (e.g. Fig. 9; see col. 8, lines 26-40; col. 10, lines 9-19).

As per claim 4, Reifer discloses a half-call model that views a call either as an originating or a terminating segment of the call (e.g. *deactivate* - Fig 10, 1 – Note: every call request or service is composed of half-call to activate or deactivate with respect to originator and destinator – see *portion of a call* – col. 7, line 12-14).

As per claim 5, Reifer discloses downloading the call service component (refer to claim 1-2) and in view of of upgrade storage from some directory by Reifer (*from SPNet database ... changes to the IRIDIUM network* – col. 21, li. 30-50) and the service provider database (see BSCS, SPNet database Fig. 7; *SPNet Tables & stored procedures -- → SPNet Server* – Fig. 8), discloses downloading from a central repository.

As per claim 6, Reifer discloses wherein each segment of the call handles service and access protocols according to a previously downloaded call service component with which the segment is associated (e.g. *portion of a call* – col. 7, line 12-14; RTX records – Fig. 7; Customer contract ... Contract Search – Fig. 10-11; Matching 620 – Fig .6).

As per claim 7, Reifer discloses wherein each call service component comprises a wrapper surrounding a set of core functions (e.g e.g. col. 3 li. 54-67; *message services* – col. 4, lines 5-17), wherein the wrapper supports dynamic downloading of the component (re claim 1 - Note: a service to parse a message reads on a wrapper, a message being an inter-application interface including core functions encapsulated within that are to be parsed) to the call controller.

As per claim 8, Reifer does not explicitly disclose wherein downloading the call service occurs while the call controller is operational and supporting live traffic, the call service being

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downloaded without disrupting the live traffic. But based on the administration module and intervention in upgrading of data/software related to call services (Fig. 11-12; *automatically downloaded to the SP's computer* - col. 10, lines 9-19), it would have been obvious for one skill in the art at the time the invention was made to implement SPNet Administration console-based steps taken so that the downloading --effected via an administrator as set forth above-- is effectuated in a timely fashion so that software supporting roaming, activation/deactivation of current call activities are not interrupted, because software upgrade after being downloaded cannot be dynamically activated (as set forth in the rationale of claim 1) when pending threads from a older version of software have not terminated; that is, the use of Administrator would be to determine a proper time for such replacement of code.

As per claim 9, Reifer discloses wherein the call service component comprises an application component for implementing call behavior (e.g. e.g. col. 7, li. 49 to col. 8, li. 40; col. 9, line 40 to col. 10, line 37).

As per claim 10, Reifer discloses wherein the call service component comprises a resource component for providing access to telephony resources (col. 7, li. 49 to col. 8, li. 40; col. 9, line 40 to col. 10, line 37) by an application component that implements call behavior (e.g. Fig. 11-14).

As per claims 11-12, Reifer discloses establishing a call having an originating segment and an terminating segment (re claim 4: col. 7, line 12-14); but does not explicitly disclose that the originating segment uses the call service component downloaded to the call controller; and wherein the call service component downloaded to the call controller represents a first call type, and wherein the call has a terminating segment that represents a different call type. But based on

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the download of application code to support client interaction with SPNet (see col. 9, li. 15 to col. 10, li. 67; Activate, Suspend, Deactivate – Fig. 11) it would have been obvious for one skill in the art to utilize the above downloaded code to support Reifer's above implied teaching via a Gateway for addressing an originating segment and an termination segment to support the client's endeavor about the activation/deactivation process as established by the SPNet service in light of the client interactive process based thereon (see Fig. 10-12).

As per claim 13, Reifer discloses establishing a call (to a database) having a terminating segment that uses the call service component downloaded to the call controller, in light of the rationale as to update or provide replacement code to the gateway controller software from claim 1.

As per claim 14, Reifer discloses wherein the call service component downloaded to the call controller represents a first call type, and wherein the call has an originating segment that represents a different call type (see Fig. 1-2 – Note: varying with the area of the wireless coverage of a transponder or satellite, the type of call therein reads on different type).

As per claim 15, Reifer discloses a telecommunication system comprising:

a data store comprising a repository of call service components (e.g. provider ... download -col. 9, lines 7-28);

a first data processor comprising a call controller (e.g. SPNet server – Fig. 8; Fig. 9); and
a second data processor comprising a gateway under control of the call controller (e.g. GBS – Fig. 4, 8);

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wherein the call controller is configured for downloading a call service component from the repository in response to a network carrier (e.g. Service Provider's location - col. 9, li. 7-14) action that corresponds to the call service component (e.g. *download* - col. 9, li. 7-14; – Fig. 9),

wherein a call service component downloaded is for a particular user area comprising a plurality of users (e.g. col. 3, lines 52-67; col. 4, lines 46 to col. 5, line 17; Fig. 4; Fig. 8), not on a per-call basis (e.g. Fig. 8-9- Note: Software downloaded to a SPNet controller location to support software execution related to SPNetclient portions in BSCS gateways in conjunction with functionality portion at SPNet server for activation/deactivation, paging roaming etc. – see col. 8, line 41 to col. 9 line 15 – reads on download of code that would be used by a provider control location for servicing all customers for the gateways covering area - col. 3, lines 52-67 - in general, i.e. not a per call basis type download);

using the call service component to support telecommunication traffic to or from the gateway (e.g. *activation* – col. 5, li. 38-50; Fig. 11; col. 9, li. 15 to col. 10, li. 67; *Activate, Suspend, Deactivate* – Fig. 11).

Reifer does not explicitly disclose: the action of downloading to a service provider is for *turning on a new service*, and *removing the call service component* from the call controller when the network carrier *shuts off* the new service corresponding to the call service component for the particular user area in the network. But this limitation has been rendered obvious in light of the rationale set forth in claim 1.

As per claims 16, 18-21, and 22, refer to corresponding rejection set forth in claims 2, 4, 6-8, and 9-10, respectively.

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As per claim 23, Reifer discloses an article comprising a computer-readable medium storing computer-readable instructions for causing a computer system to:

download a particular call service component from a repository of call service components in response to a network carrier action that corresponds to the particular call service component for a particular user area comprising a plurality of users wherein a call service component is downloaded not on a per-call basis;

use the particular call service component to support telecommunication traffic to or from a gateway under control of a call controller;
all of which limitations having been addressed in claim 1;

Reifer does not explicitly disclose: the action of downloading to a service provider is for *turning on a new service*, and *removing the call service component* from the call controller when the network carrier *shuts off* the new service corresponding to the call service component for the particular user area in the network. But this limitation has been rendered obvious in light of the rationale set forth in claim 1.

As per claims 24, 26-31 and 32-33, refer to corresponding rejection set forth in claims 2, 4, 6-10, 13 and 12, respectively

As per claim 34, Reifer discloses a method comprising
dynamically downloading a call service component to a call controller when a network carrier takes action corresponding to call service component, for a particular user area that comprises a plurality of users (refer to claim 1 for corresponding rejection), wherein a call service component is downloaded not on a per-call basis (re claim 1);

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using the call service component to support telecommunication traffic to or from a gateway under control of the call controller (refer to claim 1); wherein the call component comprises a wrapper surrounding a set of core functions, wherein the wrapper supports the dynamic downloading of the call service component (re claim 7).

Reifer does not explicitly disclose: the action of downloading to a service provider is for *turning on a new service*, and *removing the call service component* from the call controller when the network carrier *shuts off* the new service corresponding to the call service component for the particular user area in the network. But this limitation has been rendered obvious in light of the rationale set forth in claim 1.

As per claim 35, Reifer discloses a system comprising:

a network carrier comprising a plurality of media gateways (Note: first processor given weight as a plurality of gateways comprised in the NW serviced by the carrier) associated with the network carrier (Fig. 1-3); a data processor comprising a call controller adapted to control a first one of the media gateways (BSS, GBS – Fig. 4; Fig. 8-9);

a data processor comprising a management system (Fig. 8-9) associated with the call controller, wherein the management system is adapted to:

direct dynamic downloading of a service component (refer to claim 1) to the call controller through when the network carrier takes action in the service area of the plurality of media gateways (col. 3, lines 52-67; Fig. 1; *gateways 110*, col. 4, lines 63-64), wherein a call service component is downloaded not on a per-call basis (re claim 1);

wherein the service component comprises a set of core functions surrounded by a wrapper, the set of core functions provides functionality associated with the service component,

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and the wrapper supports the dynamic downloading (re claim 7) and control configuration of the first media gateway and the call controller (Fig. 4, 8; Fig. 11-14); wherein the call controller is adapted to use service component to support telecommunication traffic to or from the first media gateway (re claim 1).

Reifer does not explicitly disclose: the action of downloading to a service provider is for *turning on a new service*, and *removing the call service component* from the call controller when the network carrier *shuts off* the new service corresponding to the call service component for the particular user area in the network. But this limitation has been rendered obvious in light of the rationale set forth in claim 1.

Reifer does not disclose dynamic downloading through Java Dynamic Management Kit framework; but in view of the interactive application where the downloaded Java component is used to manipulate application definition, Javascript editing, form filling based user's interaction and browser-based (or GUI-tool) modification for the call service (see col. 9, line 7 to col. 10, line 67; Fig. 11-14), the Java framework is disclosed.

Response to Arguments

5. Applicant's arguments filed 10/19/07 have been fully considered but they either moot or not persuasive. Following are the Examiner's observation in regard thereto.

35 USC § 112 Rejection:

(A) Applicants rely on the term 'aspects', (Appl. Rmrks , pg. 10) to correlate hardware implementation with recited entities like *first data processor*, *second data processor*, and *third data processor*. This proves that Applicants are using a vague concept with no definite structural implication or correlation with the very entities being claimed. Applicants submit that the claim

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should impart inherent teaching from the paragraph including the above term; and such along with the above assertion, remains somewhat insufficient to prove how ‘aspect’ (i.e. *can be implemented ... computers that include one or more processors*) signifies ‘data processor’ in terms of one distinct hardware processor for embodying respectively (i) gateways (**plurality of**), (ii) call controller, (ii) management system because the Specifications does not provide clear and unequivocal teaching that each of the above processor implements each of the above entities (i) (ii) and (iii). However, the USC 112 Rejection now identifies and raises only a lack of Disclosure support for ‘the first processor comprising a plurality of gateways’ limitation. Any argument would be addressed in the ensuing response for the currently effected § 112 grounds of rejection.

35 USC § 103 Rejection:

(B) Applicants have submitted that Reifer’s passages in the Office Action discuss aspects as to how a gateway opens a channel ... ; records that are made ... service change; so that neither of these features corresponds to downloading a component ... carrier turning on a new service (Appl. Rmrks pg. 12, bottom). The argument is not commensurate with the passages now proffered in the Office Action; and would have to be deferred until the next response from the Applicants. The passages now applied to map claims 1, 15, 23, 34-35 provides clear teaching about Java code downloaded onto a SPNet provider controller or server, which is not to be analogized to a per-call basis necessity.

(C) Applicants have submitted that no component is downloaded in Reifer because PSTN is not a provider that provide components (Appl. Rmrks pg. 13, top). The cited portions in the Office Action points to Java components being downloaded onto a server; and the argument

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about a PSTN not being a server appears off-target with respect to how the language of claim has been mapped with the above citations (see Office Action). The argument for discussing the nature of a PSTN whereas the cited portions refer to downloading of software into a service controller or SPNet Server machine remains non-persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the reference.

(D) Applicants have submitted that any 'download' alleged (in the Office Action) to happen still cannot fulfill the requirement that such download is for a component is for a particular area including a plurality of users (Appl. Rmrks pg 13, last 2 para). The downloading as cited in the Office Action is deemed for supporting functionality of a server which communicate with more than one gateways, each of which to server a LAC. Hence, this 'plurality of users' service area has been largely mapped and fulfilled by the cited portions of Reifer. The turning on of a service has been identified from the Disclosure via:

'A management system 46 supports the dynamic deployment, configuration and operation of application and resource components 42, 44 in a service provider's network. Services can be downloaded as the carrier turns them on for a particular service area, rather than on a per-call basis' (Specs , pg 8).

'Service components 42, 44 are downloaded from the manager 62 to the server 60 when the carrier turns on a new service, for example, when new access interfaces are configured at a gateway 24 or when gateways 24 with new capabilities are added'. (Specs, pg. 10, top)

Clearly, the turning on amounts to activating downloaded upgrades or added components (supporting functionality) to a server or provider, i.e. the provider turns them (the upgrades) on – emphasis added. The Rejection has emphasized on the upgrade via download and the activation of the code being downloaded for maintaining telecommunication functional support of the

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provider controller after receiving the upgrades. Applicants would have to point how the rationale as to remove an older code to activate an upgrade code would be non-obvious in view of the current state of the Rejection; for this is a USC § 103 type of combination, not a anticipatory type of mapping. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicants further argue ((Appl. Rmrks pg. 13, bottom) that nowhere in Reifer is disclosed components that cause 'activation, deactivation, and service changes'; this amounts to allegation for a recited feature without pointing out how the cited portions in the Rejection fails to accomplish the features being particularly claimed. Any Java components added to the SPNet server is conceived as for supporting telecommunication traffic; and when the claim does not make in more specific as to how this supporting is implemented, the above argument is largely non-convincing.

In all, the claims stand rejected as set forth in the Office Action.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

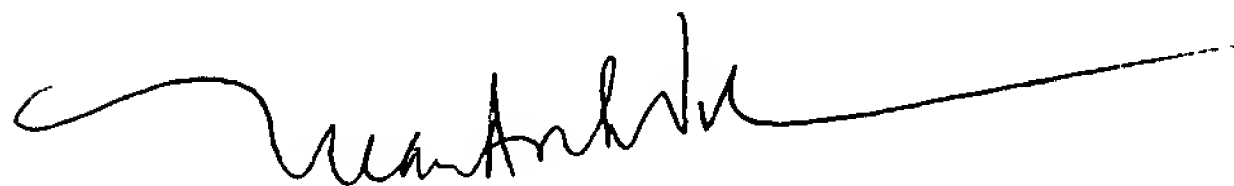
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756.

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The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan A Vu
Patent Examiner,
Art Unit 2193
December 7, 2007